

We claim:

1. A process for recovery of sodium thiocyanate from industrial process solution containing undesirable components such as organic or inorganic compounds, color imparting ions and bivalent salts by membrane based nanofiltration technique said process comprising the steps of passing the industrial process solution as a feed solution through a nanofiltration member with simultaneous application of positive pressure to provide a pass solution and a permeate solution, wherein the permeate solution is substantially devoid of the undesirable components and evaporating the permeate solution to obtain sodium thiocyanate.
2. A process as claimed in claim 1 wherein the feed solution contains undesired components of bivalent, color imparting ions and other organic and inorganic compounds.
3. A process as claimed in claim 1 wherein the feed solution contains sodium thiocyanate in a concentration in excess of 100gpl.
4. A process as claimed in claim 1 wherein the feed solution contains sodium thiocyanate in a concentration between 110 gpl and 120 gpl.
5. A process as claimed in claim 1 wherein organic components present in the feed solution is selected from the group consisting of β -Sulfo propionic acid and β -Sulfo propionitrile.
6. A process as claimed in claim 1 wherein the desired component in permeate is sodium thiocyanate.
7. A process as claimed in claim 1, wherein the process may comprise of multiple stages wherein the pass solution from a previous stage is diluted using distilled water and used as feed solution for a next stage.
8. A process as claimed in claim 1 and 7, wherein the feed solution or the diluted pass solution is passed through one or more nanofiltration membrane modules connected in series so as to produce second and/or subsequent pass solutions, consecutively, which are then finally disposed.

9. A process as claimed in claim 1, wherein the nanofiltration membrane used is selected from the group consisting of cellulose triacetate membrane, polyamide membrane and hydrophilised polyamide membrane.
10. A process as claimed in claim 1, wherein the nanofiltration membrane has active membrane area of about 1m^2 .
11. A process as claimed in claim 1, wherein the pressure applied to the feed solution at the time of passing the same through the nanofiltration membrane is equal to or greater than osmotic pressure difference between the feed/pass solution on one side and the permeate solution of the other side of the membrane.
12. A process as claimed in claim 1, wherein the process is operated under flux whose value is in the range of 25 to $40\text{ Lm}^2\text{hr}^{-1}$.